

TO: Refuge Ecologist

FROM: Asst. Ecologist, CPNWR

DATE: 21 December 94

SUBJECT: Recovery of Sonoran Pronghorn Radio Collar #1723

Satellite collar #1723 (frequency 148.310) was placed on a buck captured at 0825 on 11/08/94. The capture took place on the road through the Mohawk Valley, W of the Bryan Mountains on the refuge (32°12'16.451" N and 113° 20' 55.117" W). The chase lasted for 8.5 minutes and a maximum body temperature of 105.5° F was recorded. Age was estimated at six years (see attached Wildlife Handling Form). The animal was subsequently sighted on 11/13 during a telemetry flight at 32° 14.2' N and 113° 18.1' W. The animal was again observed alive with another buck during a telemetry flight on 11/27 at 32° 14.0' N and 113° 24.7' W. No visual contact was made during a flight on 12/09 when the signal was located at 32° 17.1' N and 113° 20.2' W.

During the next telemetry flight on Sunday, 12/18 with Bob Henry of AGFD (Steve Sunday, AGFD pilot) radio collar #1723 was located but no visual of the animal was obtained. Despite circling the signal location many times down to an elevation of less than 100 feet, visual contact was not made. We felt that flying at such a low altitude would have flushed the animal and, since nothing was observed, we concluded that it was likely to be a mortality. It should be noted that satellite collars do not have mortality sensors. A GPS waypoint of 32°17.0' N and 113°20.2' W was recorded for the San Cristobal Valley E of the Bryan Mountains. The telemetry flight then proceeded as normal. Upon returning to the CPNWR office, I phoned Laura Thompson-Olais to inform her of our observations and of the potential mortality.

On Monday 12/19, I phoned Dave Belitsky, AGFD contract administrator, and left a message concerning the potential mortality and requested the latest satellite data for this animal. Dave returned my call later that day and said that the latest Argos data, collected on Saturday 12/17, showed an activity count = 0 at 32.3° N and 113.4° W. This data supported the conclusion of a mortality. Data prior to 12/17 was not available at that time making it difficult to estimate the actual mortality date. It was decided to retrieve the collar the next day.

On Tuesday 12/20, I left Ajo at 0800 to retrieve the collar. I entered the refuge along the Camino at about 0900, reached Papago Well by 0930, and headed up the road through the Mohawk Valley. I arrived at my designated road site (mile marker 178, 32°15.0' N and 113° 23.5' W) at 1030 and headed out on foot at 1045. I travelled ENE and went through a pass in the Bryan Mountains after about 4.5 km at a heading of ≈60°. I was unsuccessful in getting a radio fix from the pass and so continued ENE to the E side, entering the San Cristobal Valley. There are many heavily used game trails through

this pass and much sign of cloven hoofed animals. There were also several unusual scrapes in the center of a major trail (possible scent marks?).

At the E edge of the pass, I again tried the receiver and this time successfully picked up a very faint signal at frequency = 148.311. I tracked the signal to the NE and circled back to the SE. The signal continued to grow in strength until, at one point, it was behind me. I turned and backtracked about 150 m and encountered the collar on the desert floor between two creosote bushes at about 1315 hrs. The collar was found at 32°17'06.066" N and 113°20'07.171" W. The area where the collar lay is a creosote/saguaro flat approximately 1 km E of the E foothills of the Bryan Mountains. The ground is hard and flat with few rocks on the surface. I took several photographs of the collar and searched the area within a 100 m radius for evidence of a kill. No evidence of the animal, other than the collar, was found. The collar was covered with sand and dirt but showed no signs of abnormal wear other than what appear to be chew marks on the satellite antenna. Next to the collar were scrape/drag marks where it appeared to have been dragged. Sharply defined drag marks were found about 5 m NE of the collar and cat-like scrape marks were observed another 3 m to the NE. About 100 m E of the collar, a set of cloven hoof tracks and claw marks were discovered together. The hoof tracks appeared to drag and shift slightly to the right as they released and the claw marks were dug deeply into the soil. This might be evidence of an attack by a large cat. The tracks were headed to the W. Photographs of all tracks were taken and are at Cabeza Prieta. No definite evidence of a struggle or kill site was found. The sign was fairly old but appeared to have been made since the last major rainfall (1.5 to 2 weeks earlier).

After completing my search, I retrieved the collar and headed back the way I had come. I cleared the pass after 45 minutes and returned to the truck by 1530 hrs. I drove out the way I had entered, exited the refuge by 1710, and returned to Ajo by 1615 hrs. I called Laura to inform her of my findings at 1830 hrs. On Wednesday, 12/21 I spoke with Bob Henry, Dave Belitsky, and John Hervert of AGFD and informed them of my findings.

Using the GPS to locate the collar (Trimble Pathfinder Basic+ v5.41), it was discovered that the Argos satellite location was 6.3 km (3.9 mi) WNW of the collar's actual location. The fix from the telemetry flight was 0.2 km (0.1 mi) SW from the true location.

*Steven Henry*